

RICE UNIVERSITY

Double Agency


by

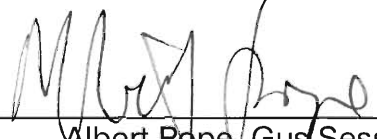
Justin W. Brammer


A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE

Master of Architecture

APPROVED, THESIS COMMITTEE:



Martin Haettasch, Wortham Fellow
Architecture

Albert Pope, Gus Sessions
Wortham Professor
Architecture

Fares El-Dahdah, Associate Professor
and Director of Graduate Studies
Architecture

HOUSTON, TEXAS
MAY 2011

abstract

double agency

by justin brammer

This thesis formally defines a diagrammatically transparent judicial system as a method of exploiting architecture's urban agency. Government and judicial institutions are typically architecturalized as either a semantic reading or a monolithic object. This thesis produces an architectural double agency merging the idea of a public object and public space.

Double agency creates architectural produce in two distinct capacities: creating a new relationship between the public and the courthouse, and the representation of the formal object in the city. This is addressed using the elements of form, organization, and legibility to reconfigure the relationship.

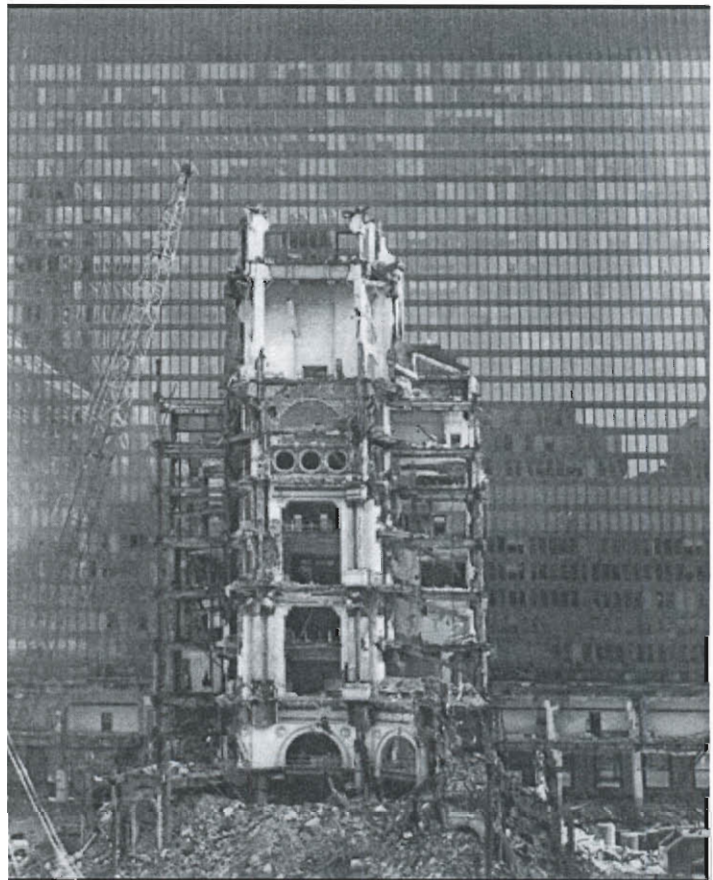
Mies' courthouse marks a shift in institutional representation from a semantic historical reading to an abstracted slab privileging organization. This thesis proposes a new shift bringing representation back to the table. The relationship between diagram and legibility challenges standard notions of the relationship between public and the courthouse institution, and between architecture and the city.

acknowledgements

Thanks to family and friends for being supportive and understanding as well as the architecture faculty at Rice, especially Martin Haettasch for persistent encouragement and Albert Pope for the always poignant advice.

contents

1	introduction
4	shift in representation
8	organization
17	legibility and the diagram
29	endnotes
30	design
37	bibliography



double agency

The Institutional-Public Threshold and Urban Representation

introduction

This thesis formally defines a diagrammatically transparent judicial system as a method of exploiting architecture's urban agency.

Government and judicial institutions are typically architecturalized as either a semantic historical reading or a monolithic detached object creating disjunction at the interface of the public and the institution (fig 1-2). This thesis produces an architectural *double agency* merging the idea of a public object and public space.

historical semantic:



figure 1 - historical semantic government institutions

abstract object:



figure 2 - abstract object government institutions

Double agency creates architectural produce in two distinct capacities: creating a new relationship between the public and the courthouse, and the dual representation of the formal object in the city. The problem of the public institution is addressed at this interface using the elements of form, organization, and legibility to reconfigure the relationship.

These issues are pursued through the design of a courthouse. A courthouse is a public institution at the interface between government and people. This junction of public and government embodies the meeting of the organizational with the representational.

shift in representation

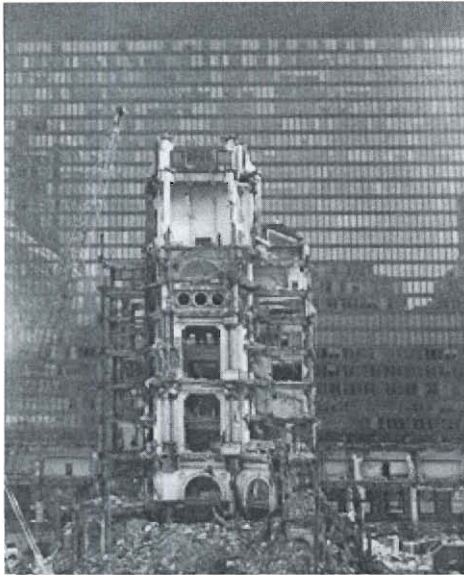


figure 3 - mies towering over chicago's former federal courthouse. originally from *Life* Picture Service, c. 1965

Chicago's former federal courthouse seen here in the foreground is being replaced by the Mies federal courthouse building in the background, c. 1965. The image marks a shift in the representation of the institution (figure 3) from a semantic historical reading to the organizational prominence of the Mies abstracted slab. The image suggests that organization had superseded and replaced representation. This thesis calls for another institutional shift bringing representation back to the discussion.

Over the course of history the courthouse has gone through multiple stages of representation. From the neo-classical courthouse at the center of every American town to the abstracted modernist portrayal of Mies van der Rohe, the representational qualities vary from the completely abstract to (Mies) to the completely transparent (Bordeaux courthouse)(figures 5 - 7). Here I use a typical American courthouse as the example of semantic representation and Mies as the model of organization and Bordeaux as postmodernism's attempt at a combination.



figure 5 - typical american courthouse

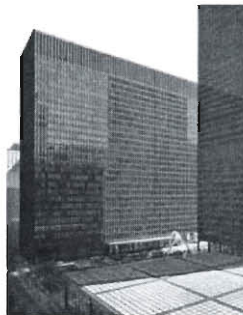


figure 6 - mies federal courthouse

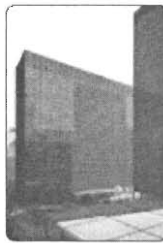


figure 7 - richard rogers bordeaux courthouse

In addition to their representational aspects, the public interface of these courthouses is minimal at best. The typical courthouse creates a disconnected public object within the center of a block. The public space in Mies is reduced to a plaza in the shadow of the slab. The bordeaux courthouse attempts to combine the object with the space but the interface is limited to visual public connection. My courthouse takes on this issue of combining public object and public space but uses a different strategy to create a new public realm.



typical american courthouse as object in site



mies courthouse public plaza



attempt at combination, limited to visual

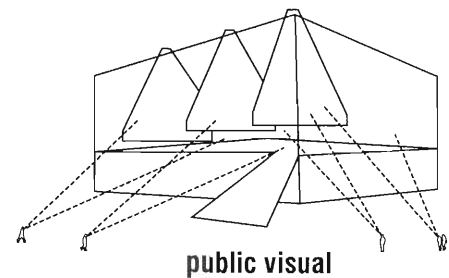
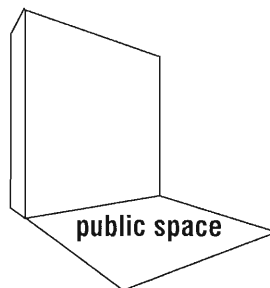
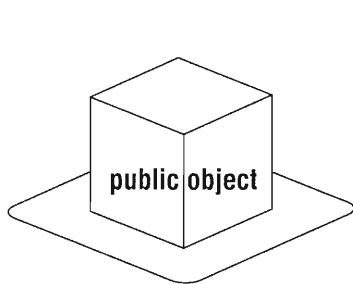


figure 8 - existing courthouse types

Expanding on these examples, the new courthouse is conceived of as a cube situated within Houston's continuous downtown grid.



figure 9 - site location within Houston

The uniformity of the cube generates a public object within the city (figure 10). This public object contributes to a presence in the city that a judiciary institution should exude. I then propose a continuous surface extending from the public urban fabric up through the cube. Here public space is merged with the public object.

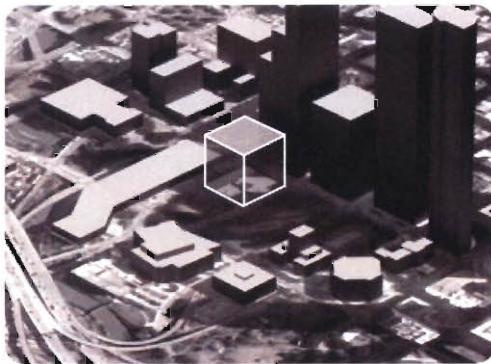


figure 10 - cubic site

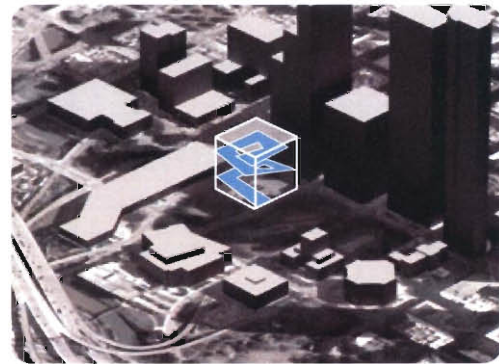


figure 11 - public surface

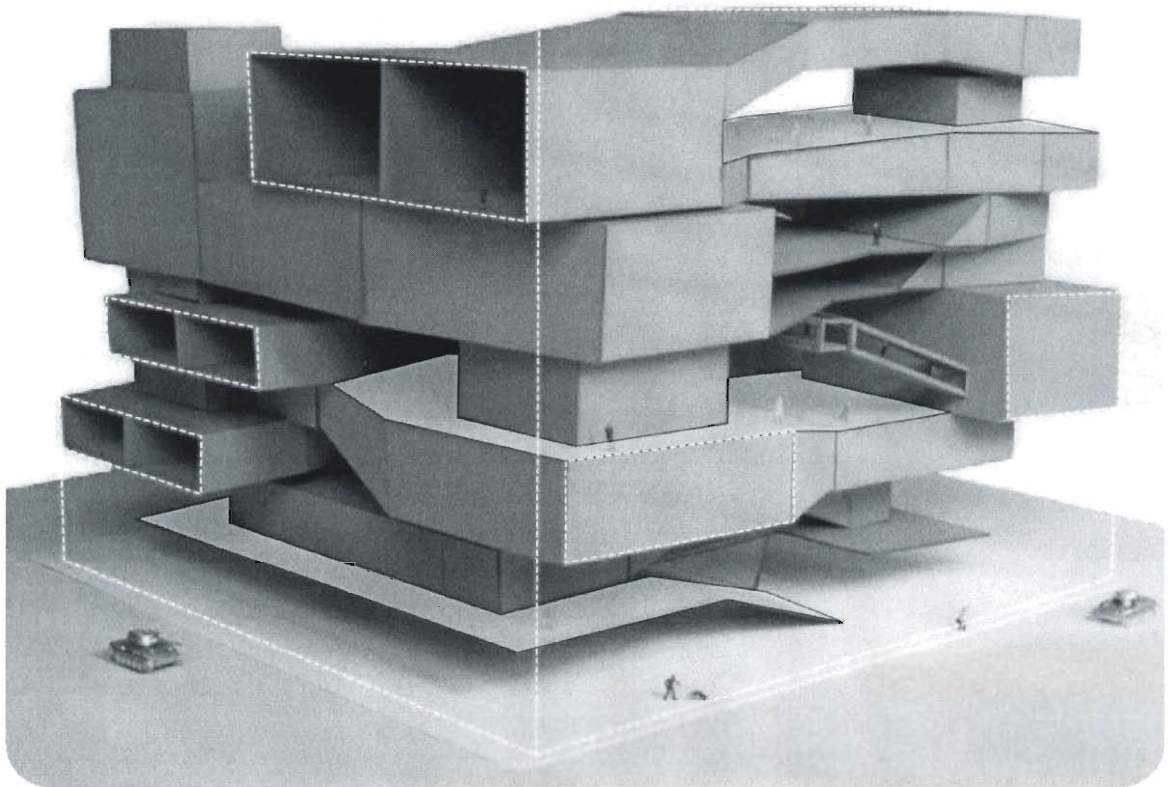
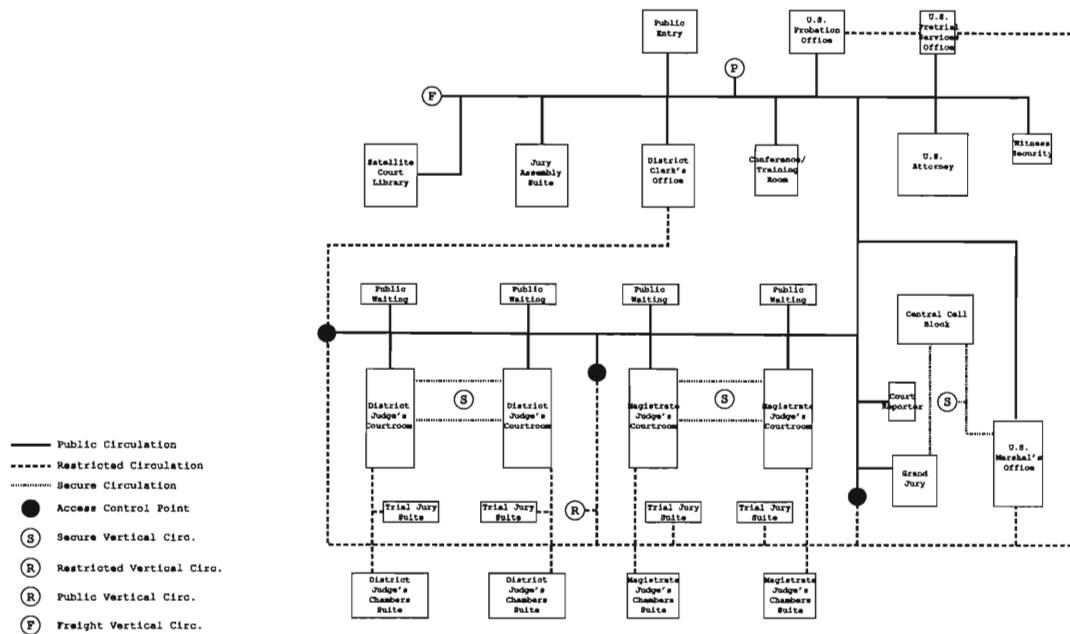


figure 12 - building edge conditions

The building oscillates between legible and illegible recognizing the monumentality of the object and utilizing shifts in the form to reveal the public nature in the new courthouse.

Seen in the figure above, the building snaps to the cube of the site creating different edge conditions. Edge conditions change the skin and transparency of the courthouse.

organization



Courthouse program adjacencies and circulation types are specified by the Judicial Conference of the United States and mandate 3 distinct constituencies: public (general access), restricted (limited access to judges, jury, administration, etc.), and secure (prisoner and US Marshall access). This diagram serves as the functional backbone of the program (figure 13).

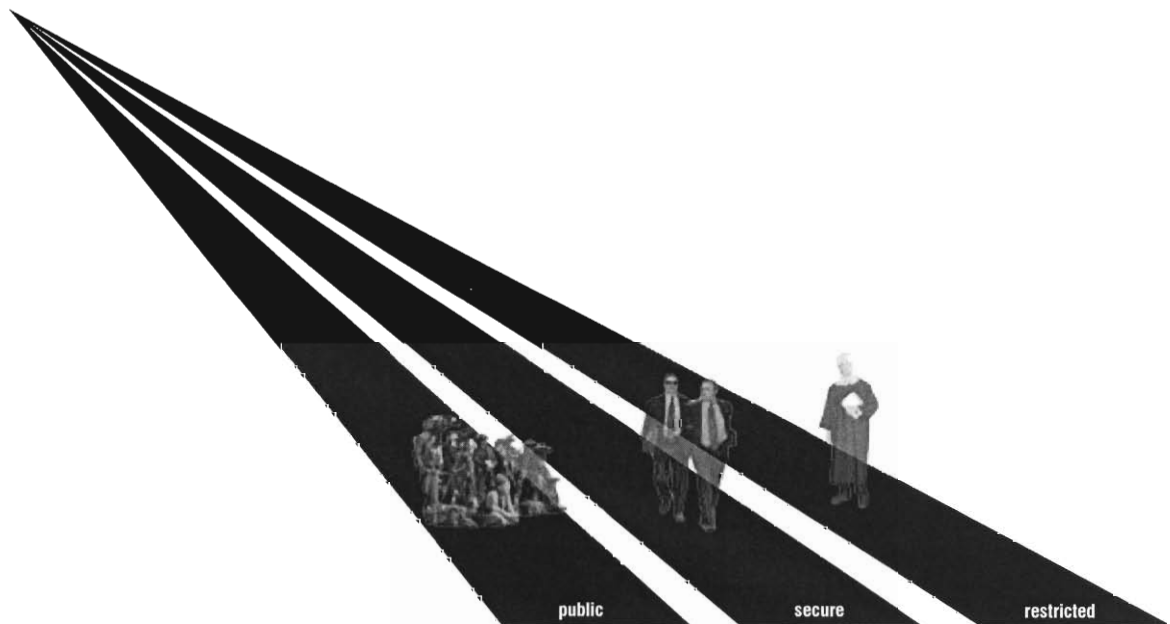


figure 14 - circulation types

To support these courthouse constituencies this thesis looks to the organizational logic of OMA's Seattle Public library as an example of producing varying types of space. Organizational shifts of programmatic boxes produce two spaces: structured space versus unstructured space. The shifts in the traditional stacked floorplates of the library affect the form while producing more complex spaces (figure 3).

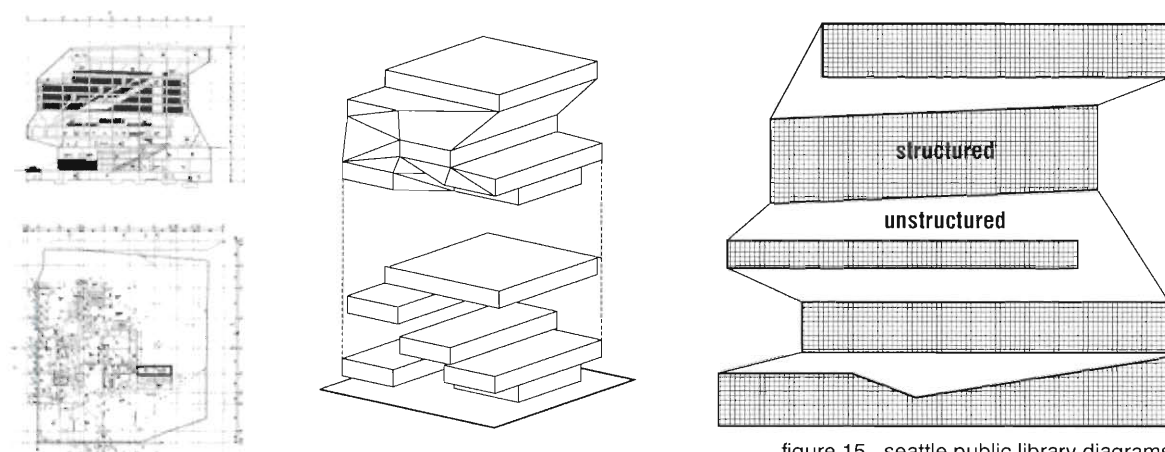


figure 15 - seattle public library diagrams

Seattle Public Library uses two operators (the box and the skin) to produce two types of space. To accommodate for the various courthouse spaces I am proposing a model using two operators to produce three types of constituencies.

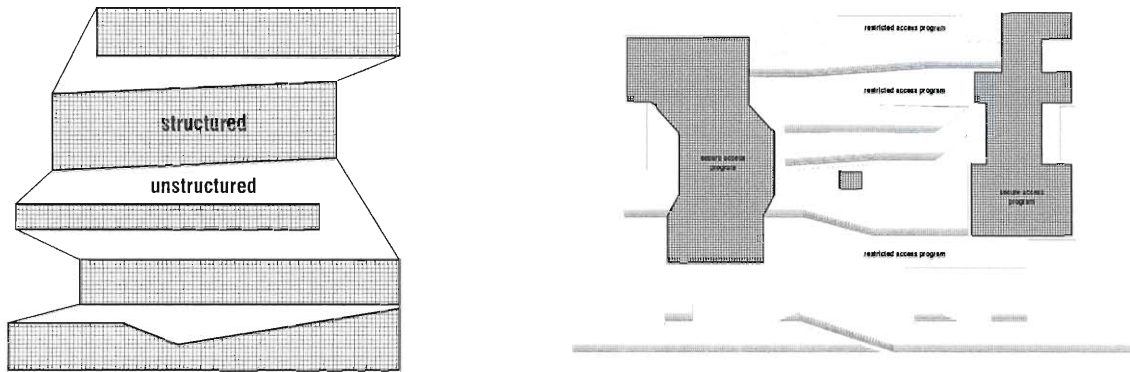


figure 16 - building organization diagram

Wherein Seattle uses “box + skin” this thesis proposes “box + connector”. The connector is a formally more free tissue that spans between the boxes (figure 16).

The two operators are used to produce three types of constituencies. The box creates a centric node for program accessible by the secure constituency (gun-controlled) including courtrooms and the cell block.

The connectors act in a linear manner to create space for the back of house and administrative operations.

The space created between the connectors allows for a continuous public surface, accessible to all.

This logic creates distinct types of spaces (with variations) that allow for different types of use. It is with these operations that the institution-public interface is reconfigured.

boxes

The box creates a centric node for program accessible by the secure constituency (gun-controlled) including courtrooms and the cell block. Pictured below is a courtroom that situates itself within the city through expansive views of the surroundings.

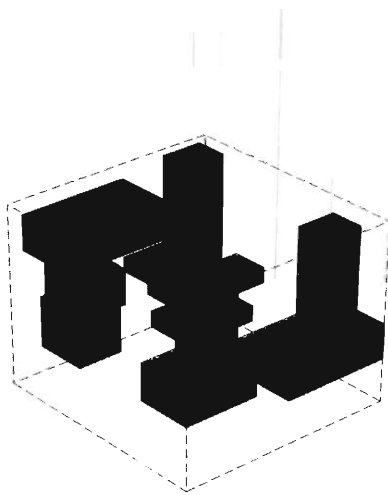


figure 17 - boxes in cube

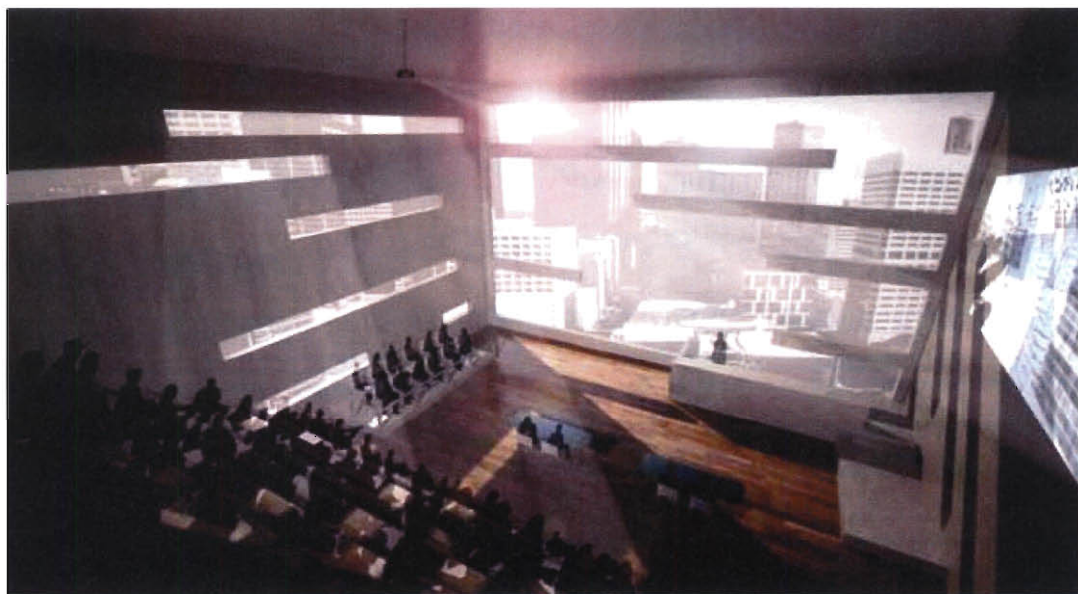
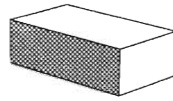


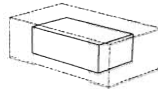
figure 18 - courtroom perspective

EDGE BOX



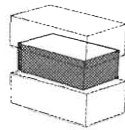
Houses the four large courtrooms and the US Marshall office. Skin condition of the edge box inverts creating views and exposure to the exterior city. These boxes are raised within the site providing views of the city below

CONTAINED BOX



This box is wrapped by the containers providing space for circulation and access from every side. Programs within include courtroom support program (jury rooms, judge's chambers) that are placed opposite courtrooms effectively stretching the circulation routes between.

EXPOSED BOX



Extruding through the connectors and revealing themselves within the cube, the exposed box allows for interaction with the public surface. Programs include support for the public including restrooms and kitchen for the cafe.

connectors

The connectors span between boxes and envelope boxes. These formally shifting components maintain necessary courtroom adjacencies while allowing for a continuous public surface up through the building.

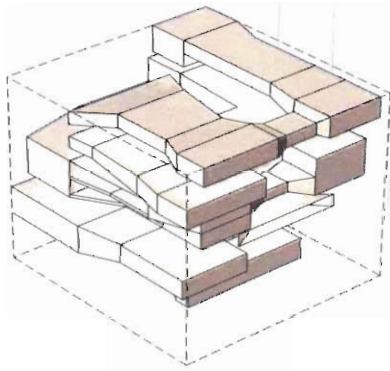
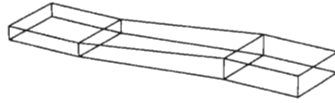


figure 19 - connectors in cube



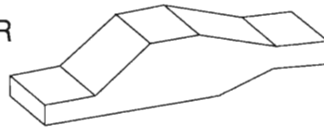
figure 20 - administration space perspective

LINEAR CONNECTOR



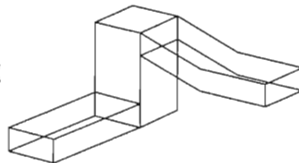
These linear connectors link the programmatic boxes together. Their formal deformations are result of organizational shifts to allow for the continuous public surface while still connecting the more rigid boxes. The highly customizable space within is ideal for administrative office use allowing variance of organization. The formal deformations are utilized to create interesting and surprising moments including terraces.

ABSORBING CONNECTOR



By absorbing the boxes this connector creates space for circulation while the formal deformations create typography for the public surface above. In specific instances, such as with the central cell block, the absorbing connector separates the boxed program from the exterior and creates supporting program such as public waiting space.

MULTI CONNECTOR



The double connector allows for multiple connections to a box or box tower. These allow for varied directional circulation routes and programmatic connection.

public surface

Creating a new interface between the public and the institution, this continuous surface is home to various public program including a cafe, law library, and public courthouse spaces. A series of escalators connect the surfaces that populate the tops of the connectors.

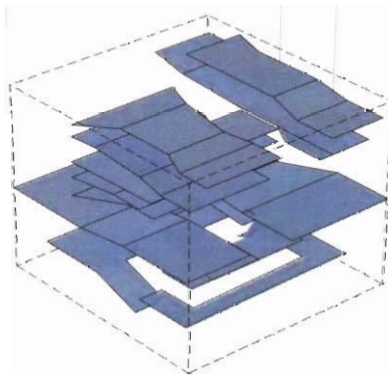
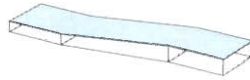


figure 21 - surface in cube



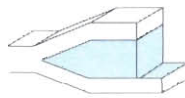
figure 22 - public surface perspective

SURFACED PUBLIC



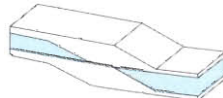
Running continuous through the courthouse, this exterior public route is free access-for-all consisting of surfaces on top of the connectors. These surfaces are connected through escalator circulation. Multiple access points along the surfaced public define the interface of the public with the institution.

SPLIT-SPACE PUBLIC



When two connectors split they create space between for conditioned public space. These spaces serve the program located within the adjacent connectors and boxes including courtroom assembly and waiting areas.

FLAT-SPACE PUBLIC



In addition to delineating space by splitting connectors can flatten to create surfaces for public program. Connectors stacked on top of each other forms conditioned spaces for open programs such as the law library.

legibility and the diagram

Returning to the cube that represents the public object we see how this organizational logic effects the institutional interface. Within the cube the continuous public space is elevated. The boxes are suspended to create programmatic destinations and the connectors span the length of the cube creating the third space constituency.

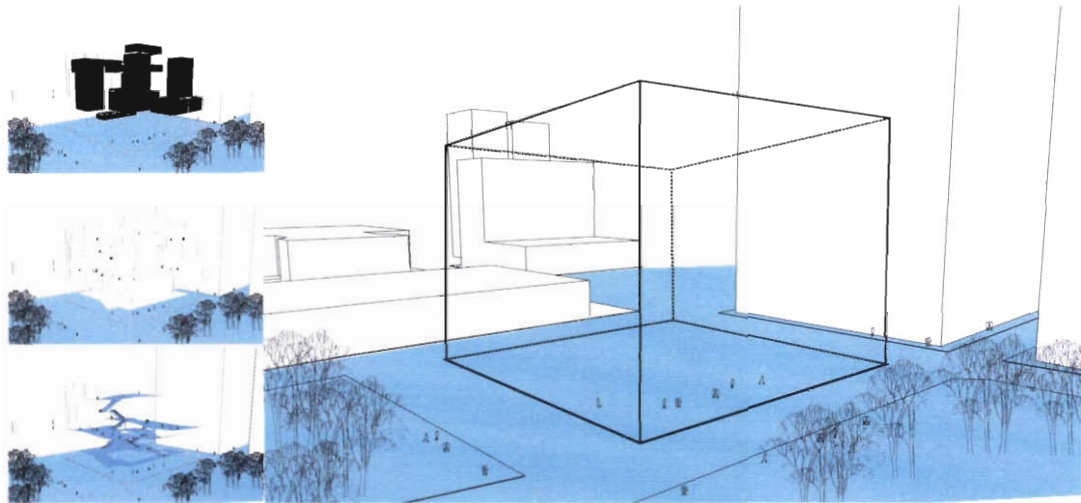


figure 23 - cube

This creates a formal object that oscillates between legible and illegible. The result is a system that simultaneously reconfigures the public-institutional interface and the representation of the building in the city.

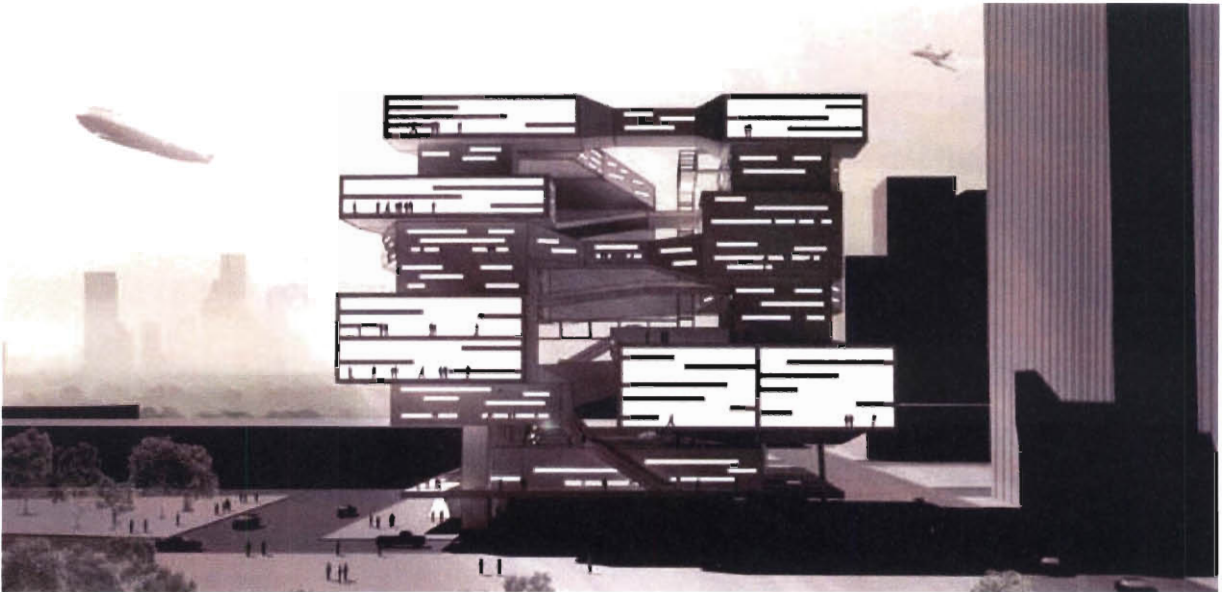


figure 24 - front view courthouse rendering

The front view of the courthouse paints a clear image for describing the project. Here we see the courthouse is raised on the ground level creating an open plane for urban circulation. One can see literally the translation of the diagram to the building. The stretching of circulation routes and programs creates an object that is not a solid mass, but rather, a opened juxtaposition of private and public space. The open-air public surface is visible throughout the courthouse giving the presence of the public within the institution.

Legibility of the diagram within a judicial institution creates a new relationship between the user and the architecture. The legibility allows for the user to challenge the methodologies of the judicial institution while creating a new public realm above the ground level urban fabric.

Legibility is referred to here both in the literal sense of being transparent, as in a material quality, and the phenomenal sense of being evident. As Colin Rowe and Robert Slutzky describe in their essay *Transparency: Literal and Phenomenal*: "...The adjective transparent, by defining a purely physical significance, by functioning as a critical honorific, and in being dignified with far from disagreeable moral overtones, becomes a word which from the first is richly loaded with the possibilities of both meaning and understanding." Such an approach to a courthouse challenges the standard representations of semantic ornamental buildings and faceless monolithic objects.

Specific circulation routes become defined further within the design. The circulation route for prisoner movement becomes formally defined as a way of connecting the boxes. This route pierces through the cube and the connectors making itself visible and creating a “perp walk” sequence from cell block to courtroom. One can imagine the programmatic variance that this would cause during a high profile trial where media can inhabit only the public surface as a way of interacting with the institution.

Other circulation routes become defined as well. Stretched the length of the connector (figure 25) between the courtroom and the jury room is a choreographed sequence of the “jury deliberation walk”. This sequence creates a transparency of the judicial process through openings in the skin system that make this walk visible.

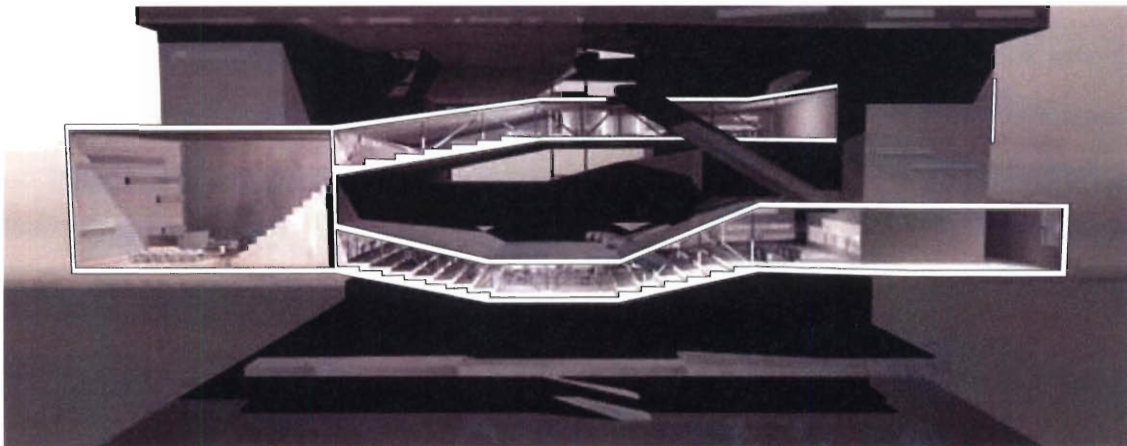


figure 25 - sectional rendering

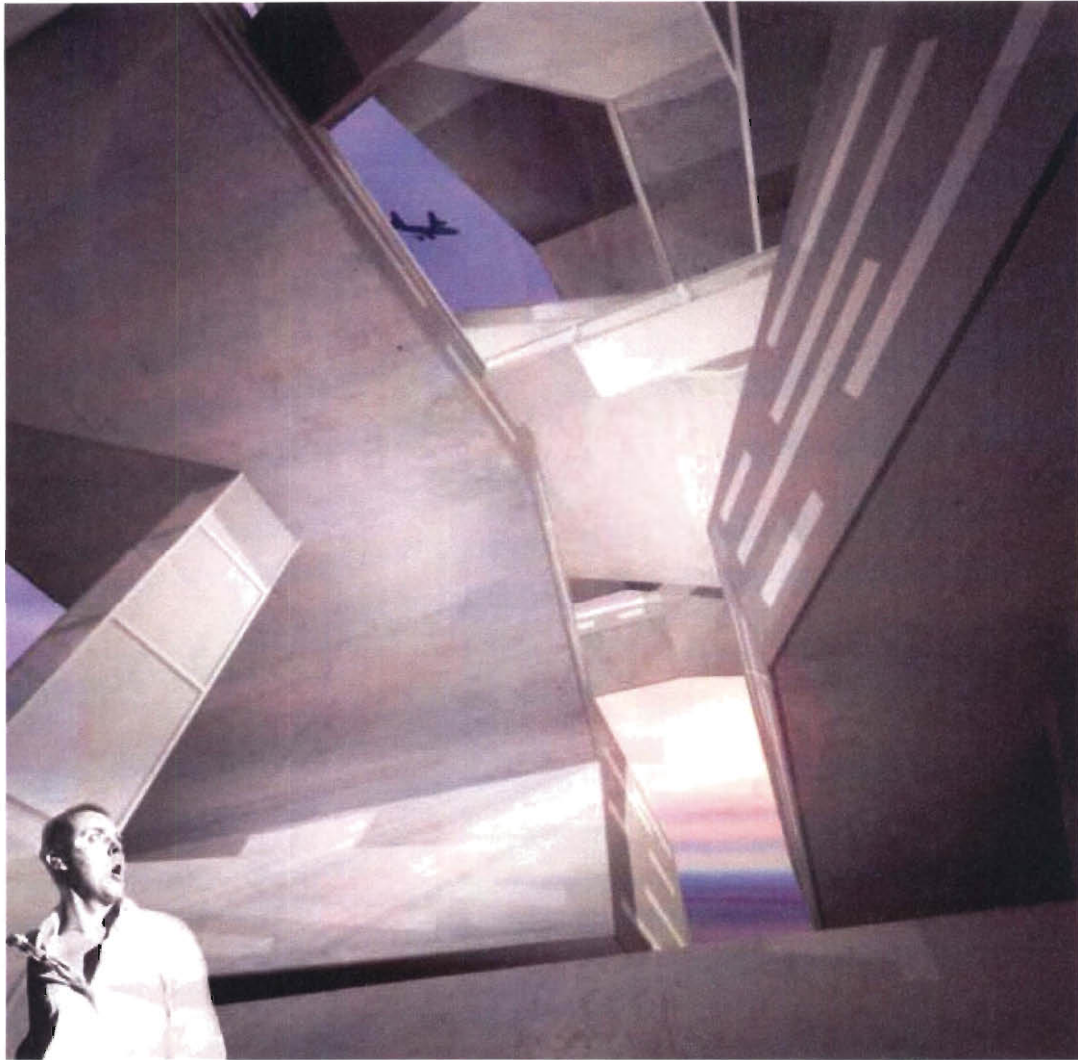


figure 26 - interior lobby view

INTERIOR MONUMENTALITY

Views from the lobby show the building's interior monumentality. The transparency of the judicial process is evident here although blurred. This blurring of space is perceived by visitors producing a monumentality that a judicial institution can exude. The presence and transparency of judicial process are employed so users can question their relationship to architecture and architecture's relationship to judicial process.

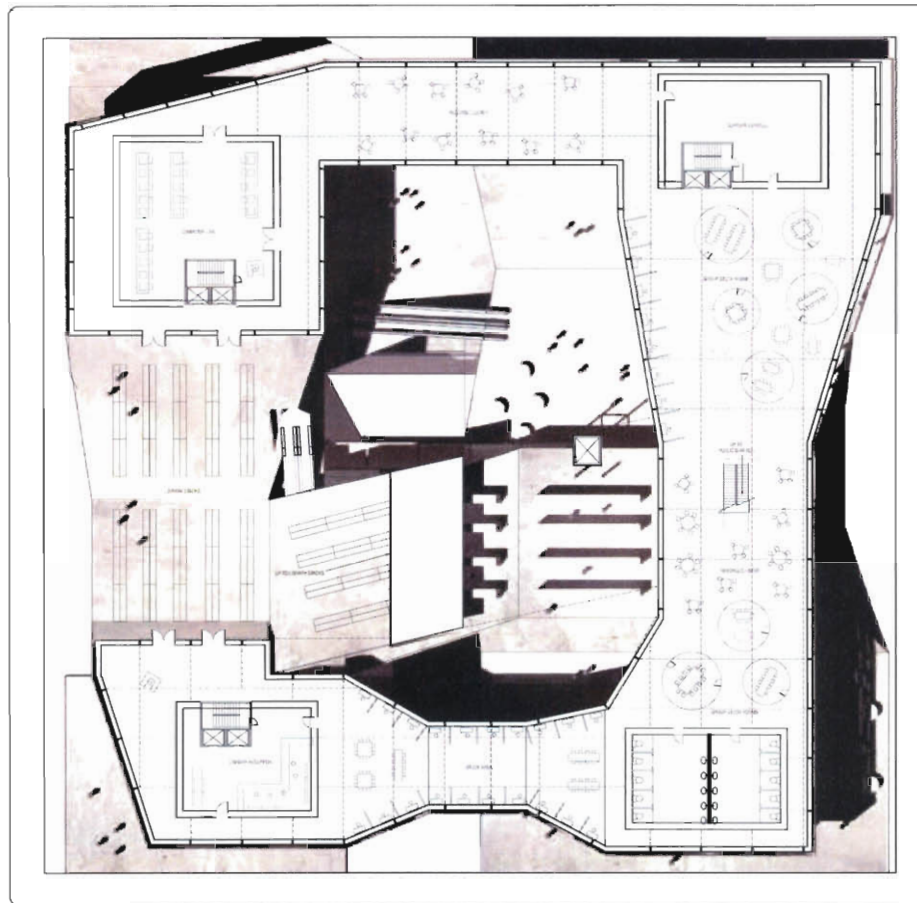


figure 27 - plan rendering cut through law library

The public surface route creates a different series of effects as well. The public route is continuous up through the building and various public program are located along surface. An outdoor cafe simultaneously allows for views of the courthouse operations and views of the city. The surface also creates for small park-like lounge spaces where both public and administration can utilize. Along the surface is an enhanced law library that promotes further interaction of this courthouse with the public.

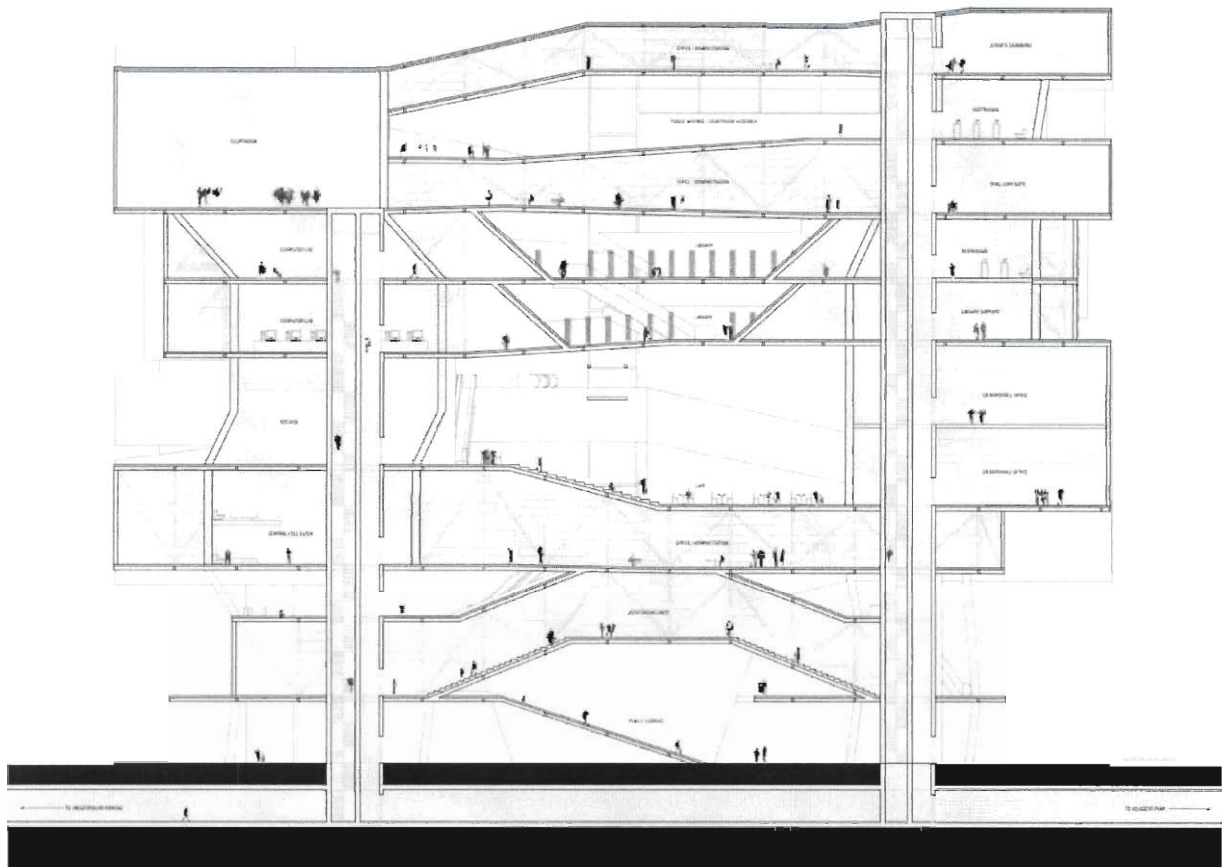


figure 28 - section

Within the connector space there is a gridded infrastructure that allows for variance of use while maintaining a rigidity characteristic of administration use. Walls can be hung for separation of spaces or for office rooms.

The section above shows the relationship between the towers of boxes, the connectors, and the public surface. People move seamlessly through the different programmatic types yet remain formally distinct.

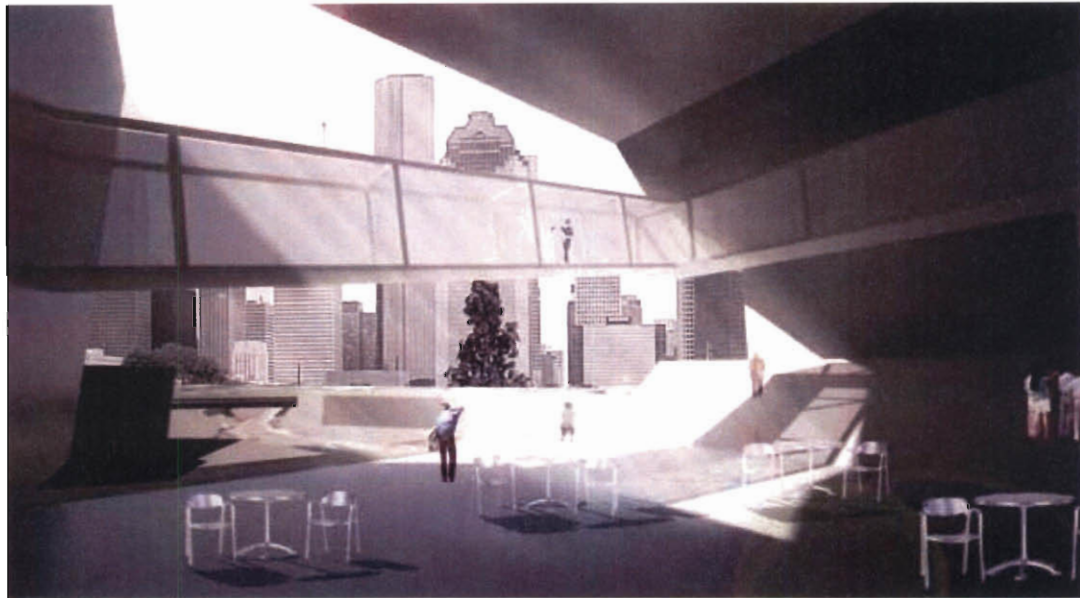


figure 29 - cafe / perp-walk view

The juxtaposition of the public and private programs creates an affectual space. The simultaneous attraction and repulsion of the courthouse with the public space results in a new urban environment. This environment becomes a platform for interaction. Seen above the rendering depicts the juxtaposition of a public cafe and a judicial perp-walk sequence.

The skin system furthers the buildings oscillation between legible and illegible by creating a singular system that has moments of reveal. This oscillation softens the monolithic nature of typical government and judicial institutions.

The singularity of material throughout the building supports the argument of the public object. This creates a blurred effect between the organizational system that produces very different types of spaces yet the materiality ties them all together. This creates a level playing ground for which the institution can build from.

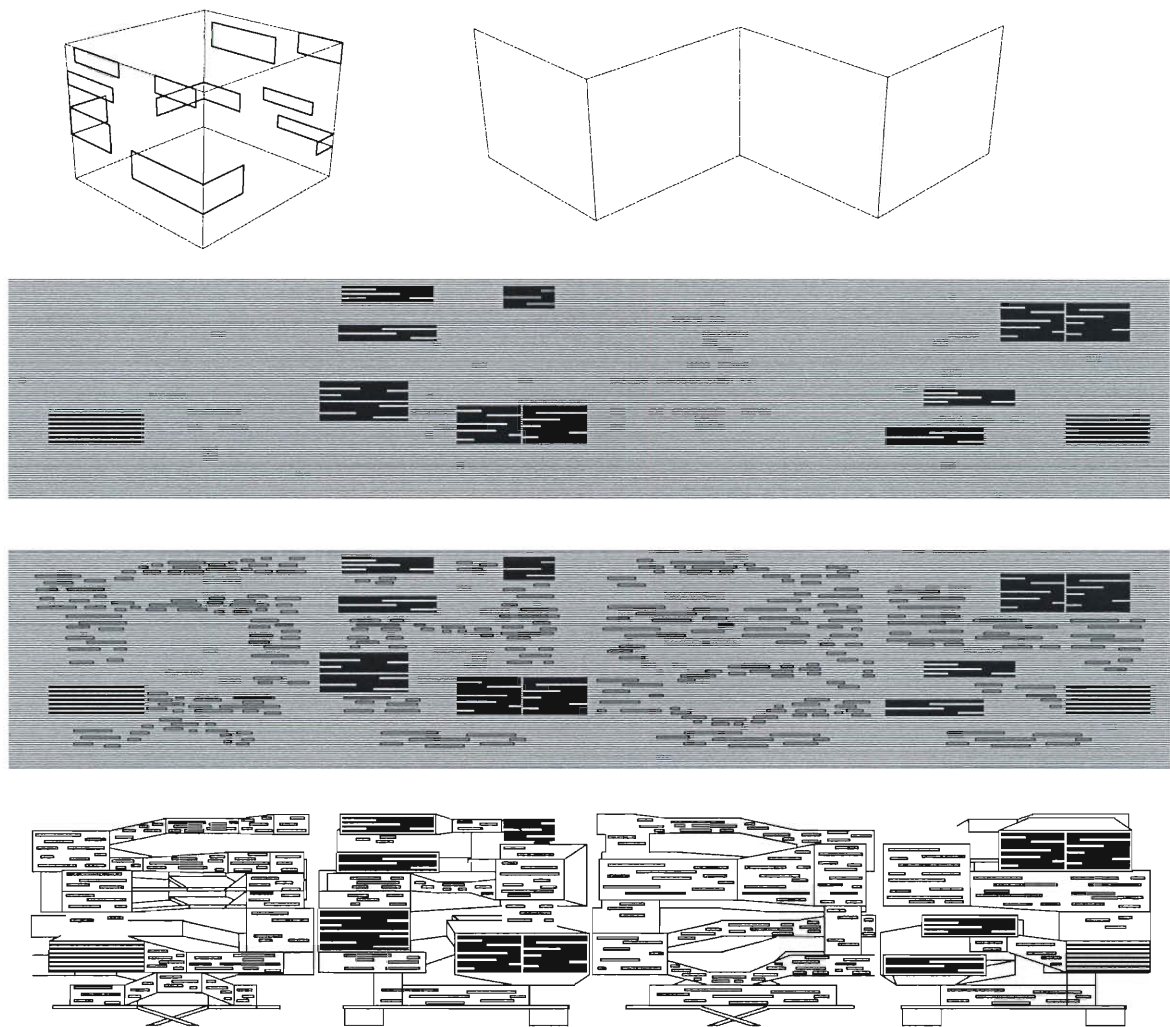


figure 30 - skin diagram

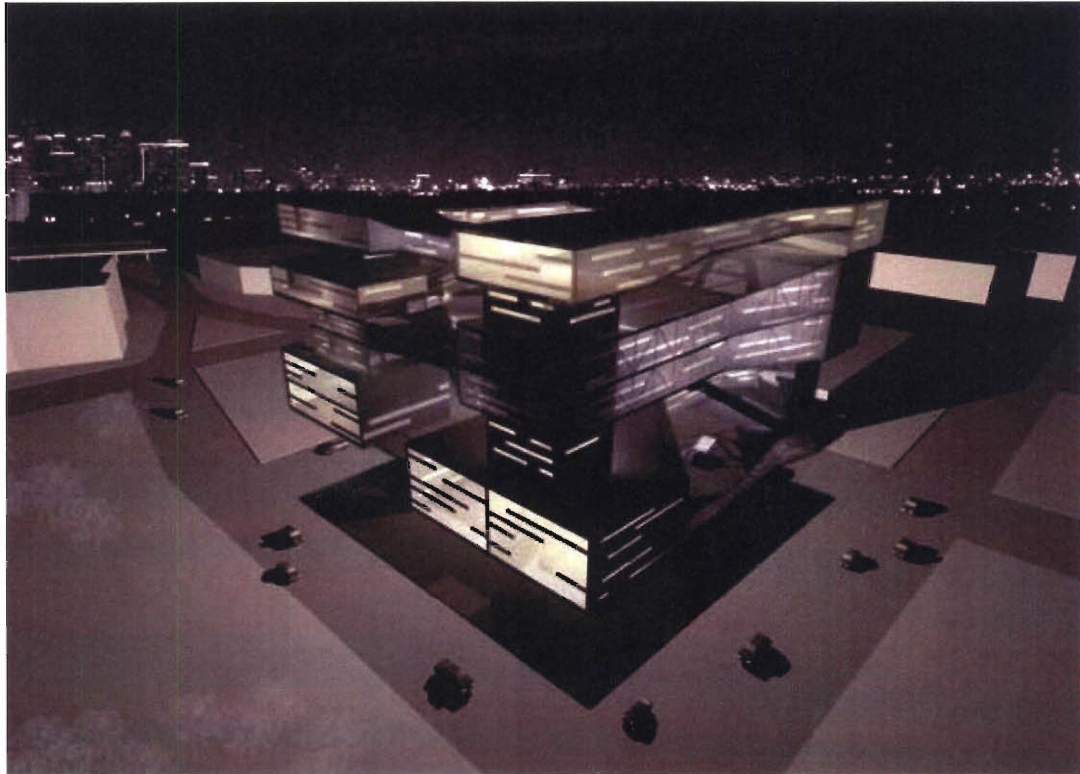


figure 31 - night rendering

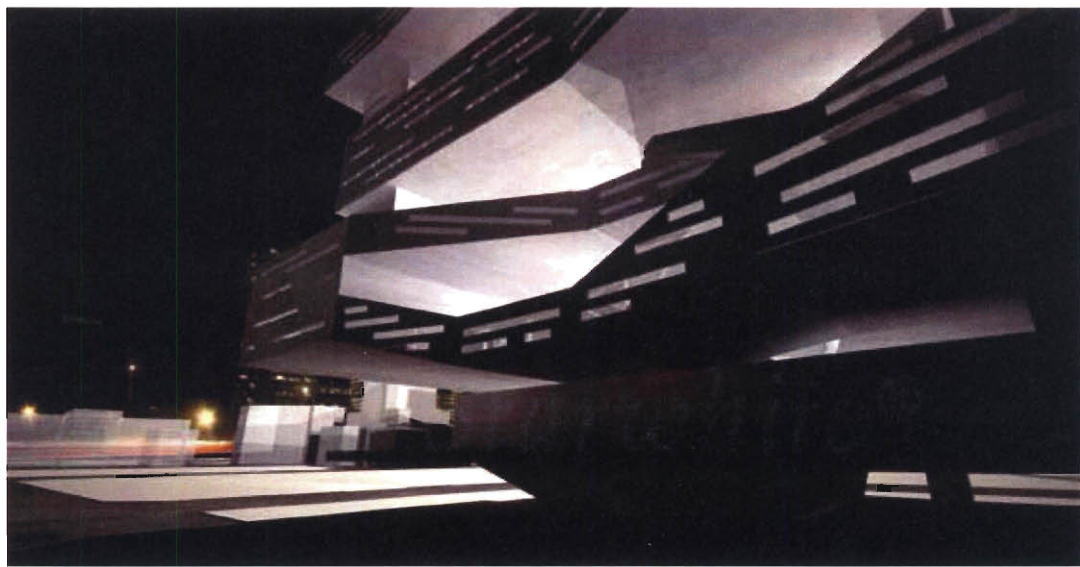


figure 32 - street perspective

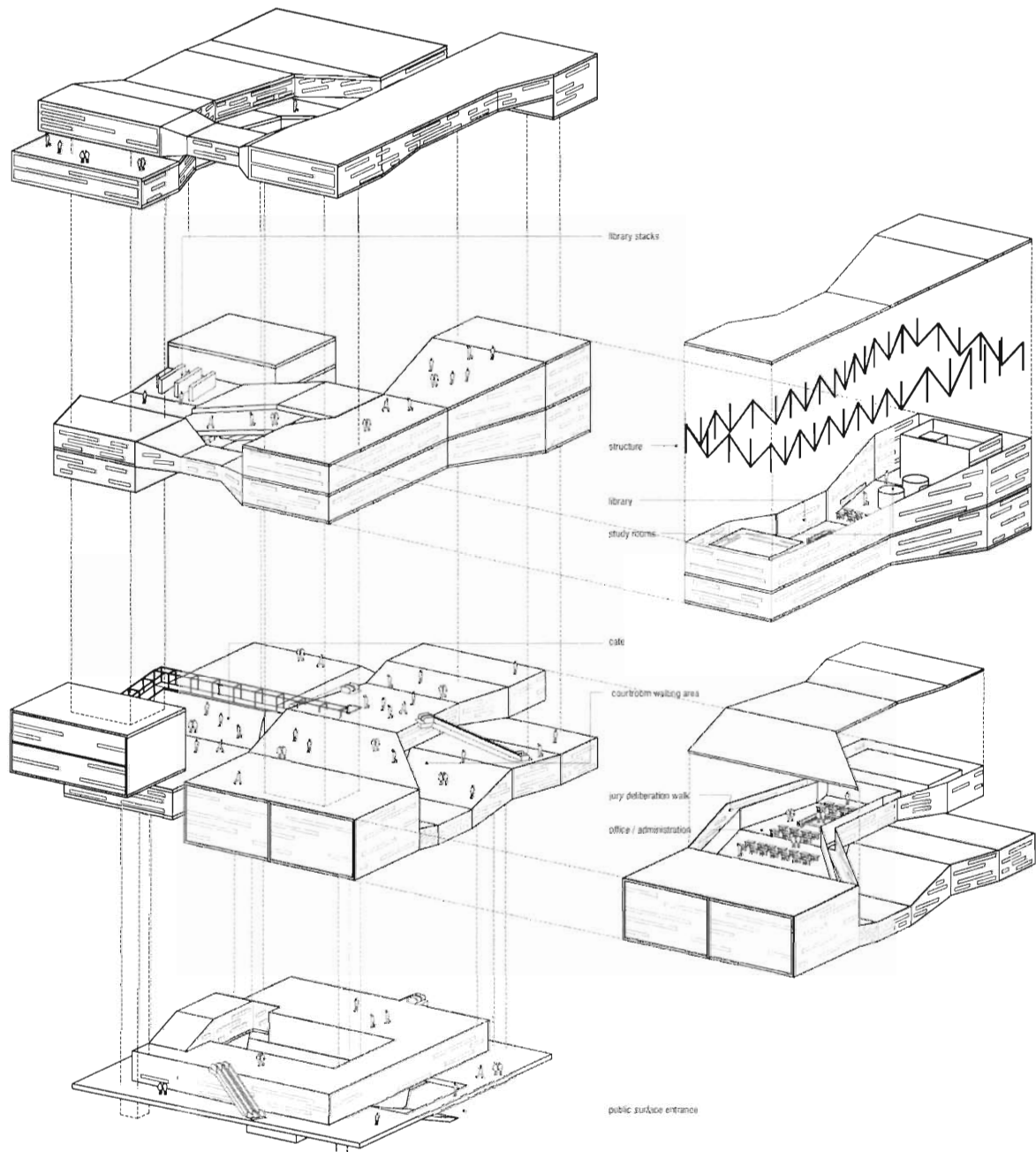


figure 32 - exploded axonometric

The building retains the presence of the object while utilizing the formal shifts to reveal the public nature in the new courthouse that combines the public object with public space.



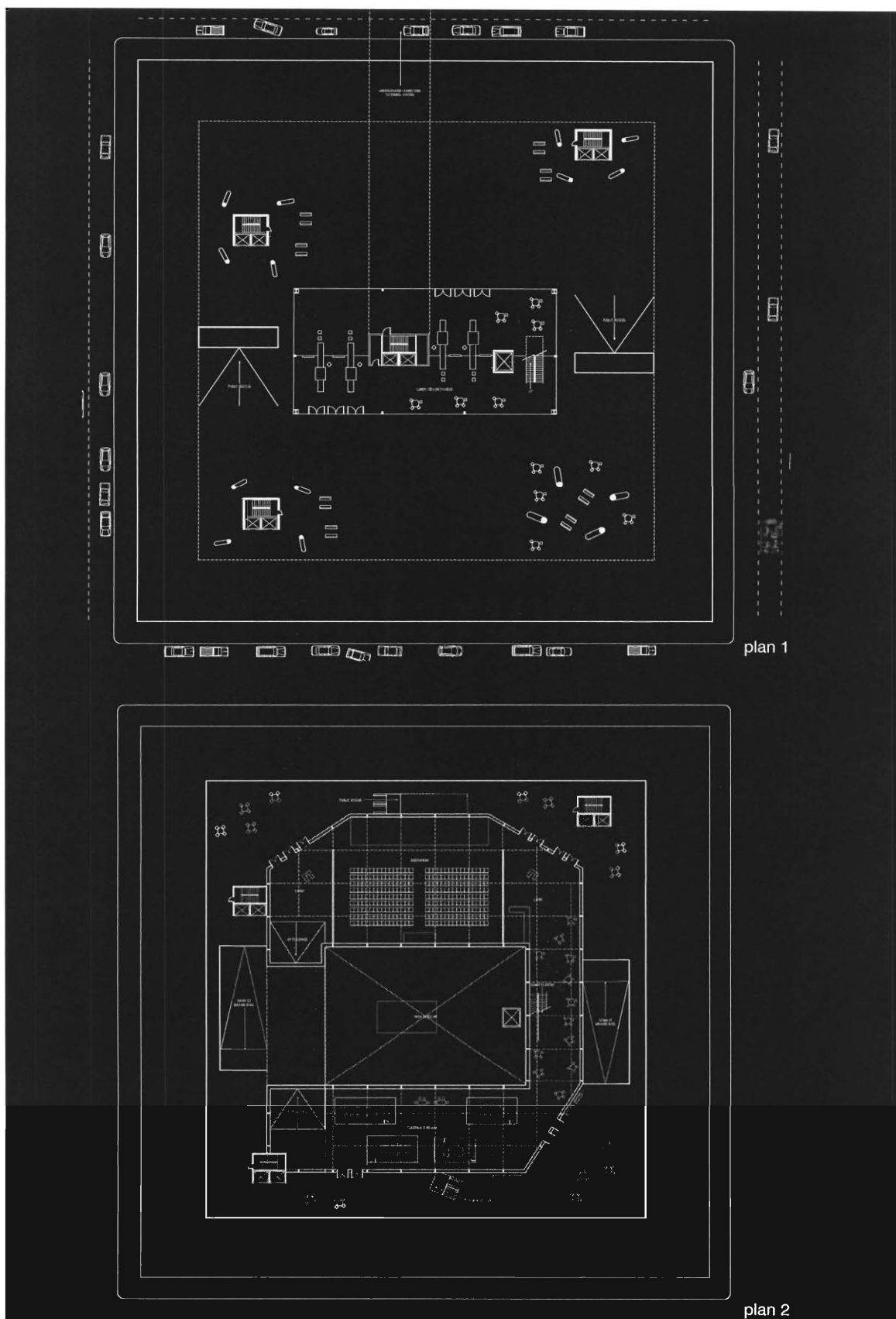
figure 33 - view from highway

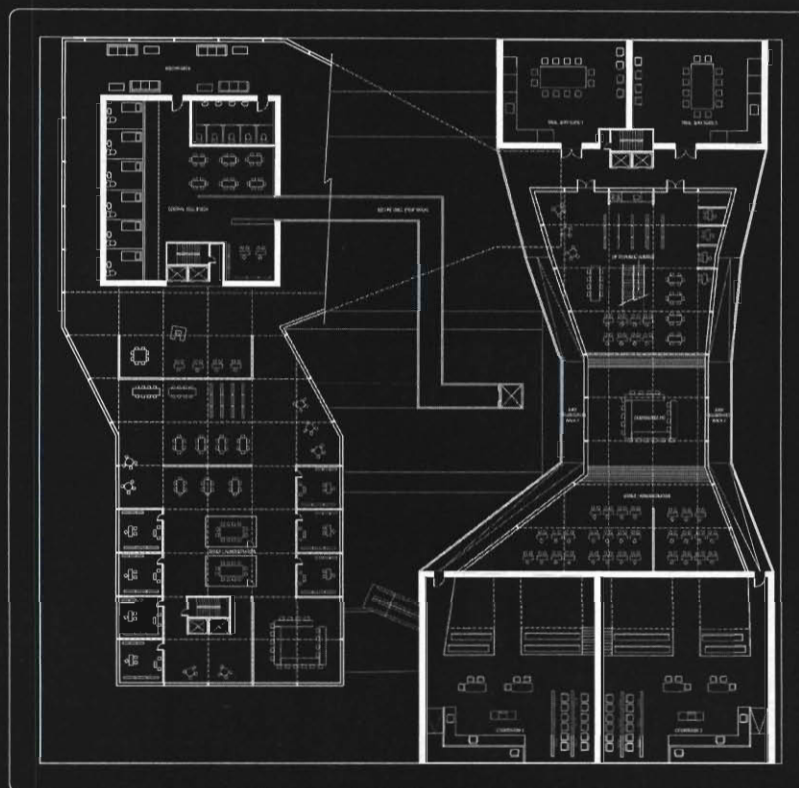
endnotes

Double Agency is an architectural approach to integrating urban organizational logics with architecture's representational potential. This is achieved through a series of formal manipulations that effect both organization and representation. In a time where integration permeates every aspect of society, architecture must further the cause. The representational clarity of this courthouse combined with the urban continuation throughout the building is an integration both of city and architecture and of subject and institution. Double Agency strives to make the user question the legitimacy of the judicial institution. The potential of a building's agency is addressed through this investigation and transparency of judicial process as well as the monumentality the object creates in its context. The legibility is tied directly to the diagram, linking architecture's agency to the formal resolution of the diagram.

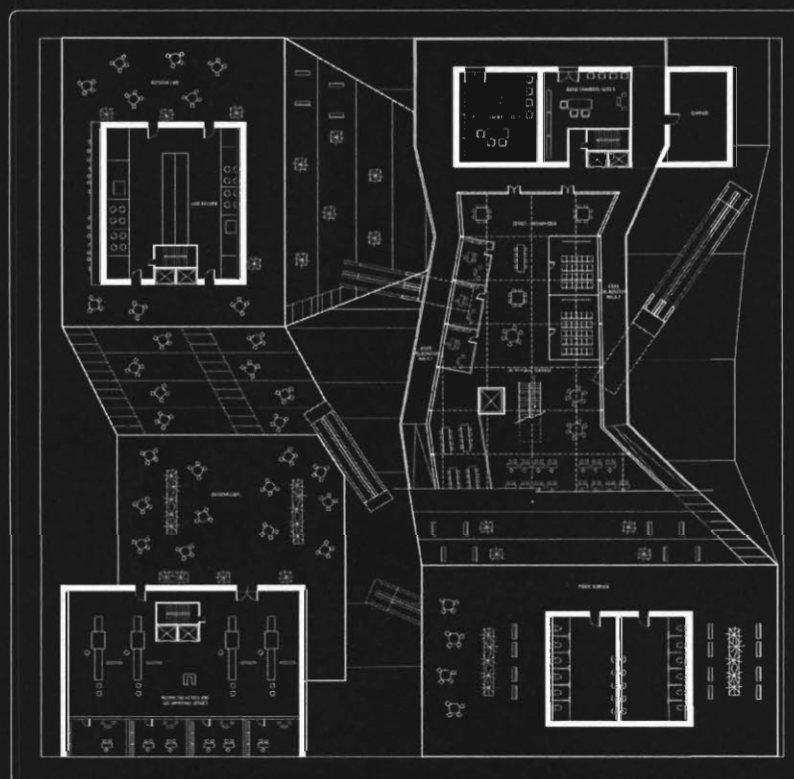
design

The following pages exhibit the thesis design in further detail including plans, sections, models, and study models.

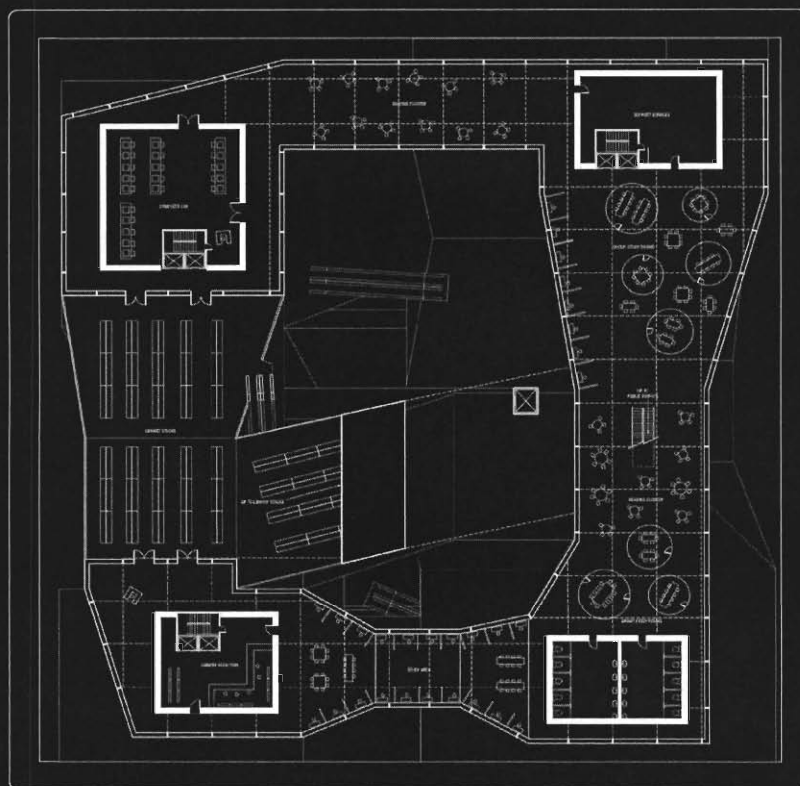




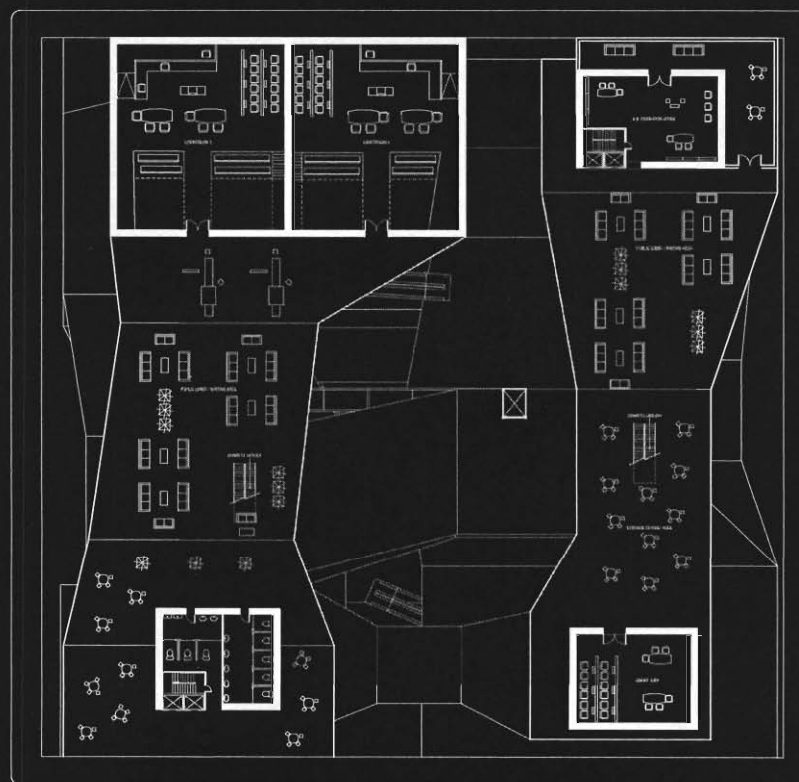
plan 3



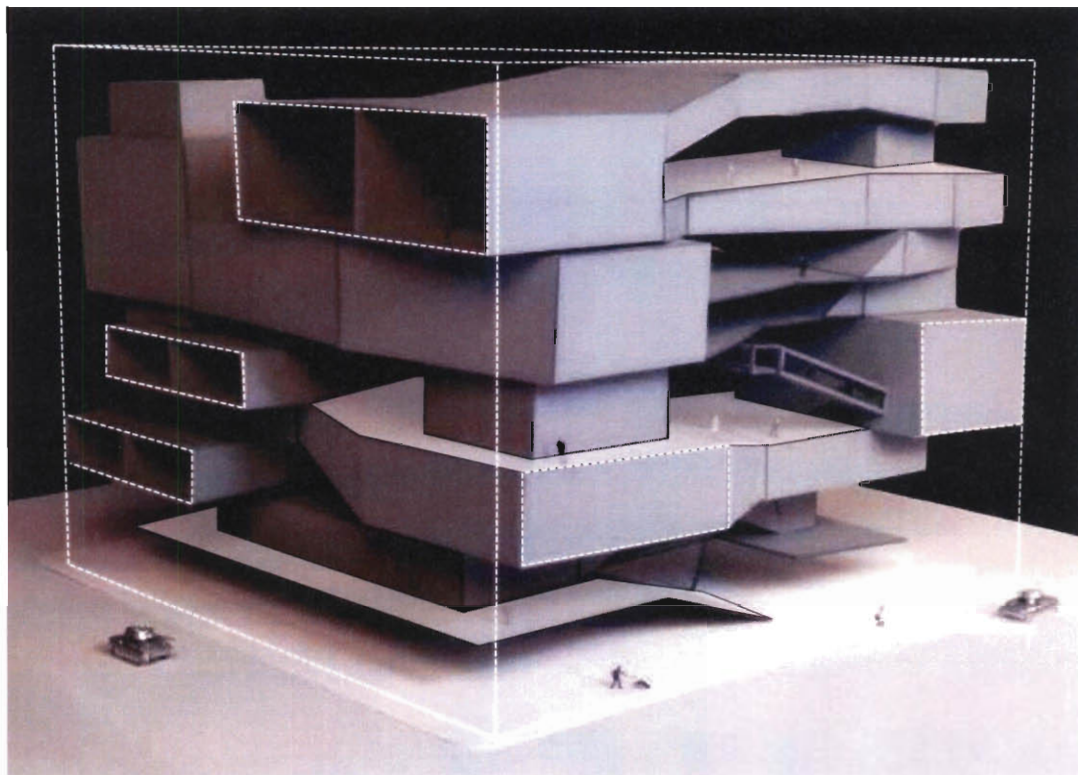
plan 4



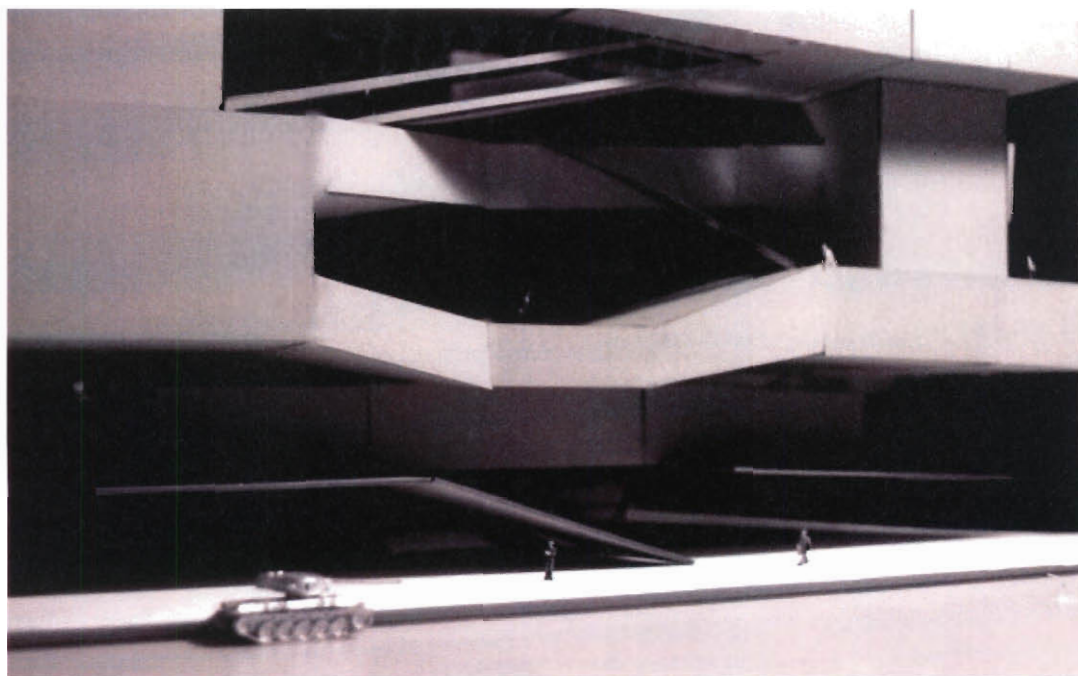
plan 5



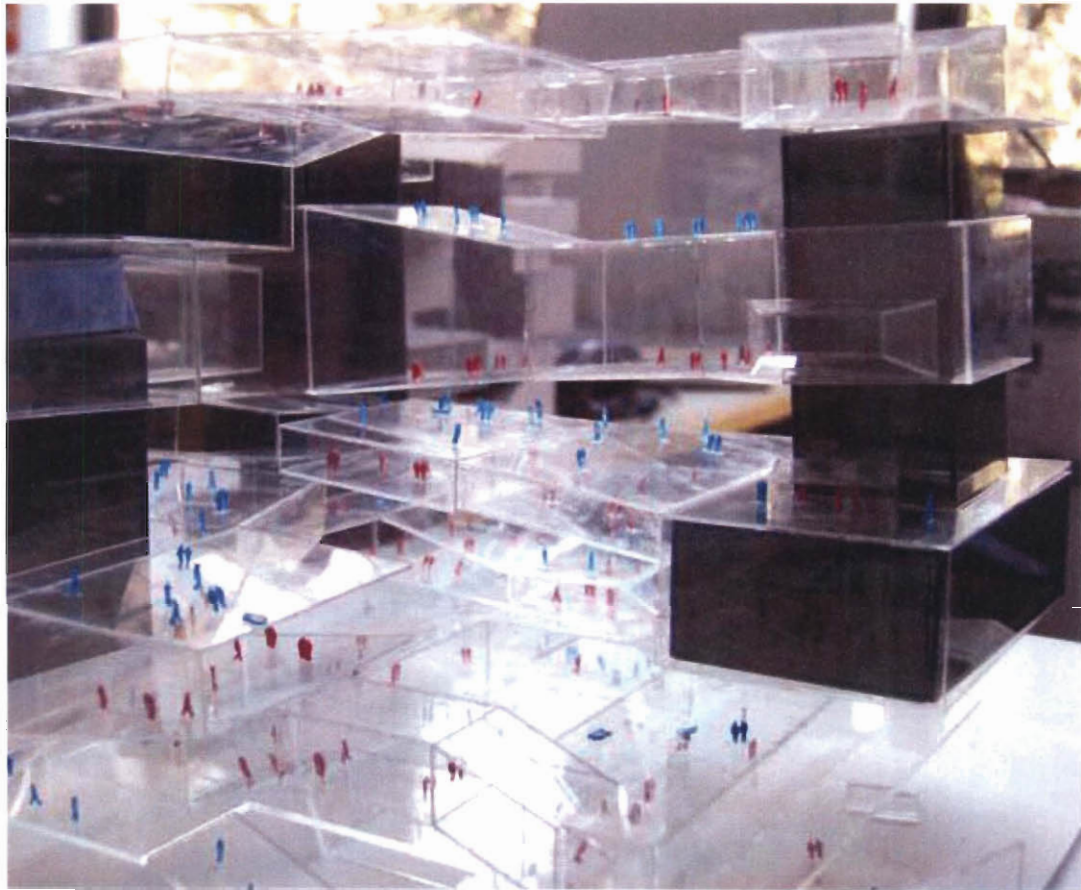
plan 6



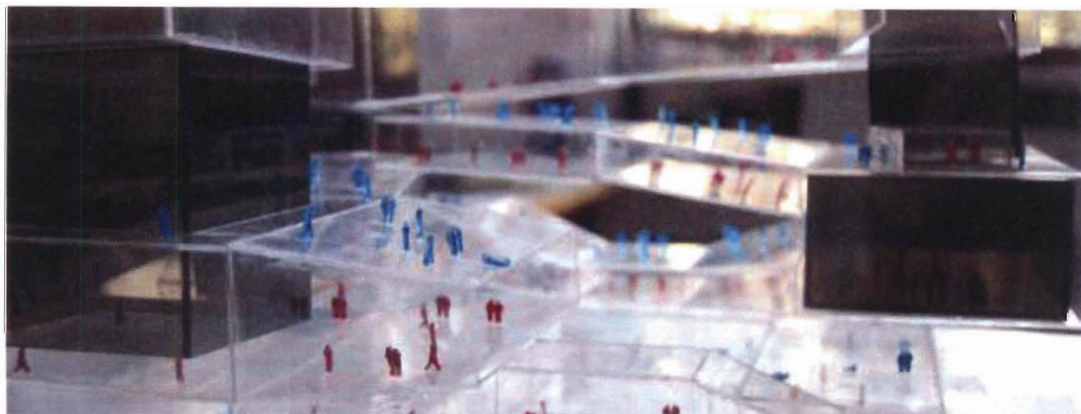
cube model 1



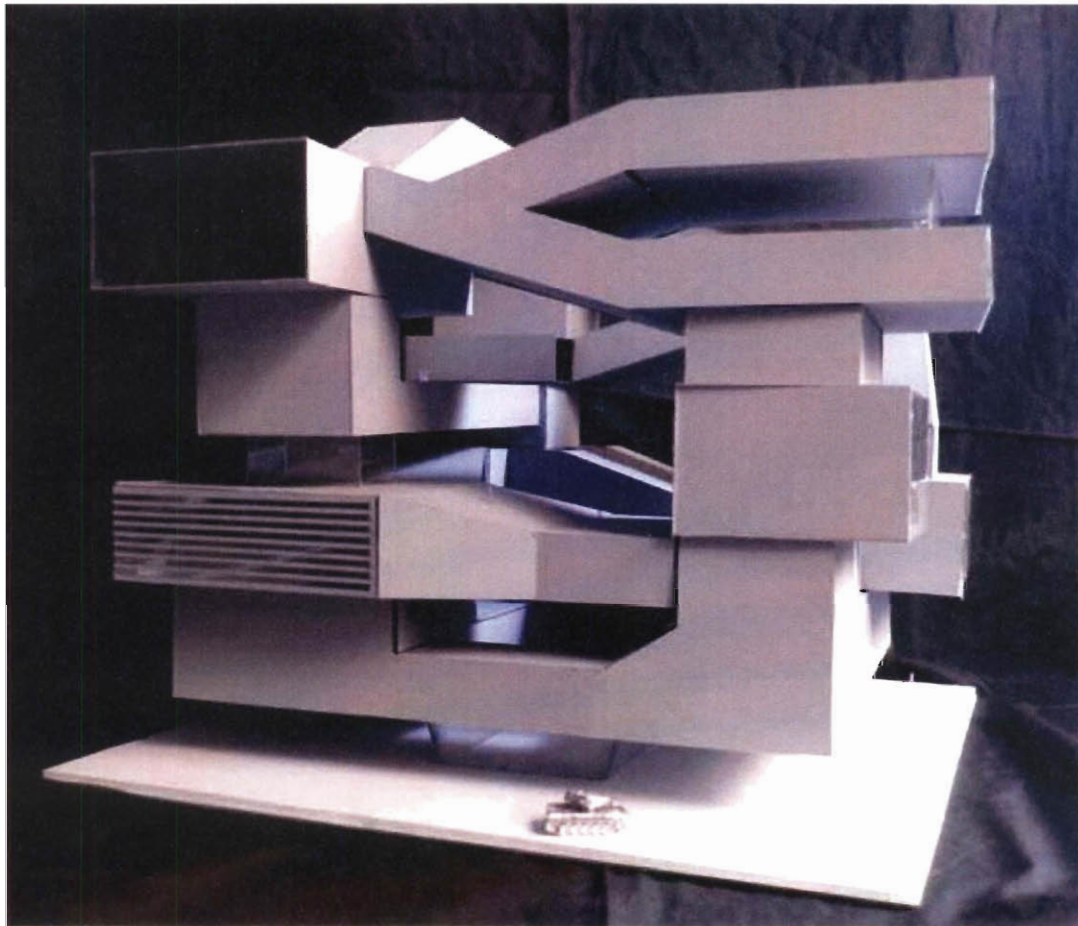
cube model 2



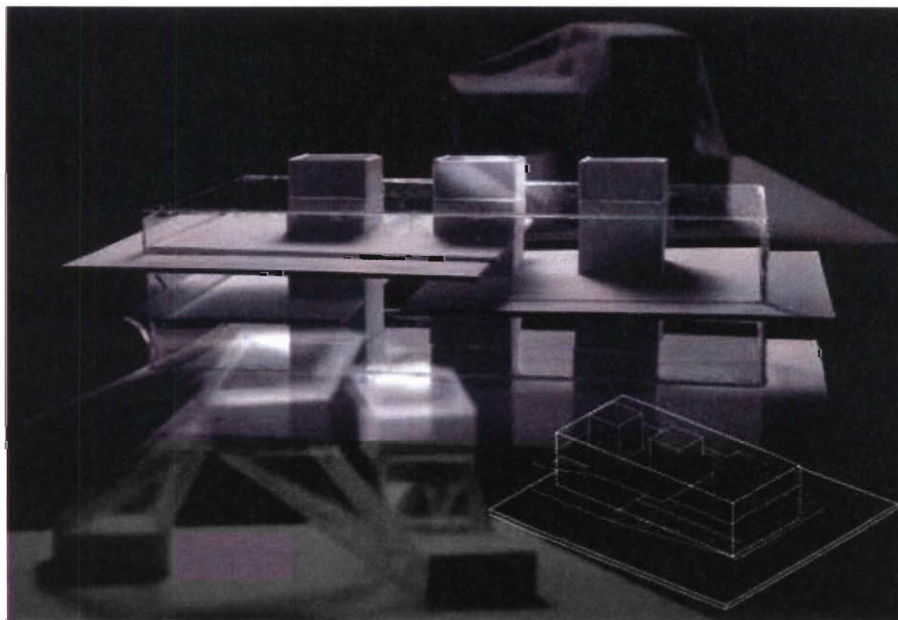
plexiglass model 1



plexiglass model 2



study model



study models

list of references

Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal" in Robert A.M. Stern, Alan Plattus, Peggy Deamer (eds.), *[Re]Reading Perspecta, the First Fifty Years of the Yale Architectural Journal*, Cambridge (Mass.), The MIT Press, 2004, pp. 134-141.

Flanders, Steven (ed.), *Celebrating the Courthouse: A Guide for Architects, Their Clients, and the Public*. New York: W.W. Norton & Company, 2006.

Judicial Conference of the United States, U.S. Courts Design Guide. 2008. < <http://www.wbdg.org/ccb/GSAMAN/courts.pdf>>

K. Michael Hays, "Critical Architecture: Between Culture and Form" in *Perspecta 21*. Cambridge: MIT Press, 1984.

Rem Koolhaas, Bruce Mau, *SMLXL*. New York: Monacelli, 1997.